

## Russian polyurethane market: anticipating local capacities

The players in the Russian polyurethane (PU) market are concerned about the availability of locally produced feedstock. Currently, Russia’s PU market 100% depends on the imported component supply, while disruptions in production and deliveries have further jeopardized the situation in 2020-2021. However, the experts interviewed by CREON Group believe that the industry has everything it needs to develop successfully due to the growing level of PU consumption.

*Maria Dimenko*

Production of polyurethane in Russia remained stable between 2015 and 2019, increasing by 4.5% from 309 000 tons to 323 000 tons, while consumption grew by 6.6% from 393 000 tons to 419 000 tons.

More than 65% of all Russian PU demand belongs to three application areas: machinery production (24%), furniture production (23%) and construction industry (19%). According to the market players surveyed by CREON Group, the largest growth by 2030 is expected in the OSB and thermal insulation segments (+4.2% and +2%, respectively).

### Price of natural disasters

Due to many factors, 2020-2021 have been complicated for the polyurethane market. External problems with the supply of feedstock in the world market, in particular shortage caused by emergency shutdowns of a number of large feedstock producers in key regions, lack of sea containers, as well as growing demand in China drove prices to historic highs.

According to [PlastInfo.ru](http://PlastInfo.ru), in March, the price for isocyanates in Western Europe continued to rise amid renewed growth in benzene price. Feedstock producers raised the price for small and medium volumes of methylene diphenyldiisocyanate (MDI) by EUR 100.0/t, and for toluene diisocyanate (TDI) by EUR 125.0/t. The material was subject to selective distribution as the reserve volumes were limited. Since the turnaround started at a major European plant in early March, isocyanate availability fell to only two-thirds of the total capacity.

Europe. MDI/TDI price in March, 2021

Product	Spot price incl. VAT, EUR/t	Change, EUR/t
MDI (polyisocyanate)	2 985	100,0
MDI (pure)	3 320	150,0
TDI	3 730	125,0

DATA SOURCE: [PLASTINFO.RU](http://PLASTINFO.RU)

In April, the restart of the plants after maintenance has been gradual. Inventory levels remain low after long turnarounds. The market continues to be in short supply, which means that the polyurethane price curve will continue to point upwards.

“In the coming year, the situation with feedstock is unlikely to change: problems will remain with both shortages and high price,” said a Russian representative of the Asian supplier of polyol systems. - Perhaps, in two years, with the launch of new polyether capacities in Asia, the market will improve. At the same time,

it will be interesting to see how the SIBUR project will develop. However, the timeline for its implementation is too long, while in Russia everything may change dramatically within six months”.

### **The stumbling block**

The experts interviewed by CREON Group say that the main obstacle to increasing the volume of the Russian polyurethane market is the lack of the local feedstock base: of one of the most important components which is isocyanate. The aggregate shortage in MDI and TDI in 2020 amounted to 197 000 tons. The main suppliers of the product to Russia and the licensors of isocyanate production technologies are five companies: BASF, Covestro, Huntsman, Dow in the West, and Wanhua Chemical in China, whose total production capacity exceeds 11 million tpa. Another negative factor is the lack of local resources for production of polyethers.

Even in an optimistic scenario, with faster growth of demand and commissioning of new capacities by 2035, the PU market will remain tight. On the other hand, the government's interest in the industry is obvious, taken the multiplicative effect: setting up the local production of isocyanates should become a driver for further investments in the PU production. Such a step, according to the estimates of the Analysis Center of the Russian Ministry of Energy, would create additional budget revenues of about 30 billion rubles per year and trigger investments at about 340 billion rubles by 2035.

### **Project of the decade**

Estimated consumption of isocyanates in Russia may reach 250 000 tons per year by 2030, which makes it rational to localize production. In this regard, SIBUR continues to work on configuring an integrated isocyanate complex in the Nizhny Novgorod Region and developing proprietary technology for MDI production. SIBUR is using past experience of local enterprises and the accumulated scientific potential to significantly accelerate R&D and to focus on reengineering processes and technologies.

The commissioning of the SIBUR isocyanate complex is scheduled for 2028, reaching full production capacity no earlier than 2030. “The designed isocyanate production facilities are almost matching the capacities that are being commissioned globally at the moment,” comments Alexey Ioffe, SIBUR's head of R&D, who is in charge of the MDI project. “There will be definitely enough supply to cover all the needs of the Russian market by 2030”.

As it stands, a significant part of the laboratory research has been completed; the design of test facilities is scheduled to start in 2022. “The entire market hopes and believes in the feasibility of the SIBUR project,” says a representative of Russia's largest ethanolamine production complex. “Properly financed, they will cope with this task of undeniable importance.”

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